ASH GROVE CEMENT COMPANY

"WESTERN REGION"

July 28, 1995

Mr. Fred Austin
Puget Sound Air Pollution Control Agency
110 Union Street
Seattle, WA 98101-2038

RE: Letter from Gerald Brown to Fred Austin on March 29, 1993

Dear Mr. Austin,

I have referenced documents (or phone logs) you already have on file supporting our final tabulation of incidents, Table 7, for the period November 1993 through January 1995. We feel that this documentation supports our assertion that the emissions were due to upset conditions in the plant and under WAC 173-400-107 were unavoidable.

These are the incidents from Table 6 that were deleted for the summary Table 7.

- December 1993: The opacity limit violations were due to an unexpected shut down caused by a plugged preheater vessel. There was a phone call made to Ann and a message left for Tom Hudson about this condition. Our *Emission Notification and Complaint Report* for the event is attached. This event should have been removed from Table 5 as a start-up / shutdown and not included in Table 6.

- March 1994: The opacity and NO_X limit violations were due to organic material (coal) that was delivered in the clay portion of the raw materials. The effect of the coal in the clay was not known to have this effect on the opacity. The opacity remained high as kiln feed that was made from the contaminated clay was purged through the system. Attempting to try to burn off the additional organic material to lower the opacity resulted in a hotter, higher NO_X, flame. Refer to the addendum to the March CEM1 and CEM2 report for our action to correct the situation (attached).

- May 1994: The opacity limit violations from this month resulted from a premature dust collector bag failure. There were several failures of individual bags and they were replaced. The whole collector was rebagged when the mode of bag failure was determined to be a condition that could effect the whole collector. Refer to the addendum to the May CEM1 and

626664

CEM2 report for our notice of action to correct the situation. (The addendum was erroneously titled April on the first submittal but the dates indicate the May events. The corrected copy that was submitted at a later date is attached.) An error has also been discovered in the tabulation of NO_X excess emissions, the mass emission data was not removed. The number of incidents for the daily concentration of NO_X in May 1994 should be one (1) not three (3).

I hope that this information will be enough to complete the submittal of data related to the plant CEMS violations.

The remaining incidents, Table 7, were not willfully committed, investigations for methods to alleviate the excess emissions were made immediately and measures initiated as soon as possible. The mechanical systems though out the plant that may have any effect on emissions are regularly inspected for wear and proper operation.

Per our discussion of June 27TH we have also filled out your *Emission Monitoring Civil Penalty Worksheet and Recommendation* form with our assessment of the impact of the excess emissions indicated in Table 7.

Sincerely,

Nathan A. Fernow
Plant Superintendent

cc: Ed Pierce
Jerry Brown

Enclosures

BUSINESS CONFIDENTIAL
OP-65-3
(REV. 8/93)

EMISSION NOTIFICATION AND COMPLAINT REPORT
ASH GROVE CEMENT – SEATTLE PLANT

If additional space is needed, use back of this form.

NOTIFICATION REPORT:

DATE: 12/16/93 EMISSION-TYPE: Dust TIME STARTED: 8:30 STOPPED: _____
SOURCE: 3rd Stage Cyclone - Preheater Tower - Plug
PSAPCA OPERATOR: Ann ; Tom Hadden, Mgr. TIME REPORTED: 9:00 am
IMMEDIATE ACTION TAKEN TO STOP EMISSION: Emission was caused by actions to remove plug from Preheater. Maintenance activity to continue until plug has been removed.

EXTEND BEYOND PLANT BOUNDARIES? Yes DIRECTION: N W
DETAIL CAUSE OF EMISSION: Preliminary report suggest plug was suspected at 9:00 pm 12/15/93 - Kiln was shut down for Tower inspection Maintenance activity began @ 8:30 am 12/16/93 with air lances. The use of air lances cause emission

ACTION TAKEN TO PREVENT A REOCCURRENCE: Operational upset

LIST OTHERS NOTIFIED: Ken Rose notified Hasbro

EMISSION COMPLAINT RECEIVED:

DATE: _____ TIME: _____
NAME: _____ TELEPHONE: _____
ADDRESS: _____ TELEPHONE: _____
CITY: _____ ZIP: _____ PRESENT LOCATION: _____
DESCRIPTION OF COMPLAINT: _____

OBSERVED FROM: _____ TIME: _____
INFORMATION REQUESTED: _____

INFORMATION PROVIDED: _____

CALL BACK REQUESTED: _____ CALL BACK OFFERED: ACCEPTED _____ REFUSED _____
DESCRIBE CALLER'S ATTITUDE: _____
COMMENTS: _____

PLANT OPERATIONAL STATUS: _____

WEATHER DATA

PRIOR 24 HOUR PERIOD
TEMP: MAX _____ MIN _____ PRECIPITATION NO
AT TIME OF COMPLAINT/NOTIFICATION
WEATHER CONDITION: Clear WIND DIRECTION: Calm

REPORT PREPARED BY: G J Brown
TITLE: Mgr Safety + Env

AGCS2M000388

Addendum to CEM Forms
March 1994
Ash Grove Cement

Number	Date	
		SO2 Emissions:
3	3/1	Kiln preheat phase of startup, unable to add sorbent.
1	3/12	Kiln preheat phase of startup, unable to add sorbent.
7	3/17-3/18	Kiln preheat phase of startup, unable to add sorbent.
		NOx Emissions:
4	3/1	Kiln Startup.
8	3/2	Kiln Startup.
12	3/4-3/5	There was a change in the chemistry of the feed. The feed became easier to burn causing the kiln to heat up.
5	3/8	There was an increase of CO in the system brought in by the kiln feed (see CO emissions). The operator increased the draft to reduce the CO and the increased O2 caused an increase of NOx.
5	3/18	Kiln Startup
		CO Emissions:
16	3/8-3/13	There was an upset caused by an increase of organics in the raw materials. This was identified as coming in through the clay. Once discovered, our clay supplier was notified and all recoverable clay was returned to the supplier. There was some feed left over in the bottom of our silos that showed up a week after the problem had been dealt with.
4	3/20-3/21	

Opacity:

There were 24 excursions of our 1 hour limit and 9 excursions of the 3 minute limit. These upsets were caused by hydro carbons from the increased organics in the kiln feed mentioned under CO emissions. During the 6 days the excursions took place, we were extremely active verifying that the baghouse was operating properly. On 3/8 a bag broke causing the opacity to increase over 90% for four minutes. This problem was identified and quickly taken care of.

These procedures should be copied for your

Addendum to CEM Forms
May 1994 (revised)
Ash Grove Cement

Number	Date	
		SO2 Emissions:
50-47	5/1-5/10 5/12, 5/30 5/31	The sorbent addition system plugged with material. This had to be shut down and cleaned. This was not caused by poor maintenance or operation and should be exempt from penalty. This has been recognized as a serious problem, and the system has been redesigned to combat this. These modifications will be made during July 1994.
1	5/11	With the permit levels adjusted as requested, this would not be a violation.
24	5/6	The Monitor Labs SO2 analyzer was shown to be incorrect. PSAPCA was notified of this and our subsequent actions. A new analyzer had been previously ordered and was installed late in the month. For the interim, an analyzer was installed from Valid Results.
9	5/17 5/23	Kiln preheat conditions did not allow sorbent to be added to the system. Due to startup conditions, these occurrences should be exempt from penalty
		NOx Emissions:
8	5/6, 5/11 5/23, 5/25	These exceedences occurred during startup and should be exempt from penalty.
1	5/26	With the permit level adjusted as requested, this would not be a violation
		Opacity Emissions:
		There were numerous occurrences of bag failure during the month. This was in spite of a regular and intensive maintenance routine. It was determined to rebag all eleven compartments at this time. The baghouse was operated according to the manufacturers specifications and the bags failed prematurely. This should be considered and event beyond our control

EMISSION MONITORING CIVIL PENALTY WORKSHEET AND RECOMMENDATION

Source: Ash Grove Cement Co - Seattle Plant

Case No: _____ NOV No: 32848 (Opacity 5% 1hr)

The following procedure shall be employed in making a recommendation for assessment of civil penalties for violations of Agency regulations or permits determined through continuous emission monitoring or source testing. Guidance for answering the questions in Table I are found on the back of this sheet. Civil penalties involving demonstrable economic benefit to the violator shall include both a gravity and a benefit component and shall be determined by adding the dollar amount from Table II below and the economic benefit calculated using the EPA BEN computer model. Civil penalties for other violations shall consist of a gravity component only and shall be determined from Table II.

Table I
Gravity Criteria

	No (0)	Possibly (1)	Probably (2)	Definitely (3)
1. Did the violation result in air pollution?	—	—	+	—
2. Was it a willful or knowing violation?	+	—	—	—
3. Was the violator unresponsive in correcting the violation?	+	—	—	—
4. Was the violation a result of improper operation or inadequate maintenance?	—	+	—	—
5. Did the violator have a history of similar violations?	+	—	—	—
6. Did the violator benefit economically from noncompliance?	+	—	—	—
Total Gravity Criteria Rating				—

Table II
Gravity Component Penalty

Rating:	1-4	5-7	8-9	10	11	12	13	14	15	16	17+
Penalty:	$1,000	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000	$10,000	$11,000

Benefit Component Penalty

If the answer to question #6 in Table I is "Definitely", the estimated dollar amount of economic benefit determined by the EPA BEN computer model is: $_____ (attach calculations).

Comments: June 1994 MAXIMUM 1 hour Average 10.6%
A Single event

Evaluator: _____ Date: 7/28/95 Civil Penalty Recommendation: $1000.00

Checked By: _____ Date: _____

EMISSION MONITORING CIVIL PENALTY WORKSHEET AND RECOMMENDATION

Source: Ash Grove Cement Co - Seattle Plant

Case No: _____ NOV No: 32849 (Opacity 20% 3 minute)

The following procedure shall be employed in making a recommendation for assessment of civil penalties for violations of Agency regulations or permits determined through continuous emission monitoring or source testing. Guidance for answering the questions in Table I are found on the back of this sheet. Civil penalties involving demonstrable economic benefit to the violator shall include both a gravity and a benefit component and shall be determined by adding the dollar amount from Table II below and the economic benefit calculated using the EPA BEN computer model. Civil penalties for other violations shall consist of a gravity component only and shall be determined from Table II.

Table I
Gravity Criteria

	No (0)	Possibly (1)	Probably (2)	Definitely (3)
1. Did the violation result in air pollution?	—	+	—	—
2. Was it a willful or knowing violation?	+	—	—	—
3. Was the violator unresponsive in correcting the violation?	+	—	—	—
4. Was the violation a result of improper operation or inadequate maintenance?	—	+	—	—
5. Did the violator have a history of similar violations?	+	—	—	—
6. Did the violator benefit economically from noncompliance?	+	—	—	—
Total Gravity Criteria Rating				—

Table II
Gravity Component Penalty

Rating:	(1-4)	5-7	8-9	10	11	12	13	14	15	16	17+
Penalty:	($1,000)	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000	$10,000	$11,000

Benefit Component Penalty

If the answer to question #6 in Table I is "Definitely", the estimated dollar amount of economic benefit determined by the EPA BEN computer model is: $_____ (attach calculations).

Comments: June 1994 Maximum 3 minute Average 35%, A Single Event.

Evaluator: _____ Date: 7/28/95 Civil Penalty Recommendation: $ 1000.00

Checked By: _____ Date: _____

EMISSION MONITORING CIVIL PENALTY WORKSHEET AND RECOMMENDATION

Source: Ash Grove Cement Co - Seattle Plant

Case No: _____ NOV No: 33657 NO_x 700 ppm @ 10% O_2 1 hr

The following procedure shall be employed in making a recommendation for assessment of civil penalties for violations of Agency regulations or permits determined through continuous emission monitoring or source testing. Guidance for answering the questions in Table I are found on the back of this sheet. Civil penalties involving demonstrable economic benefit to the violator shall include both a gravity and a benefit component and shall be determined by adding the dollar amount from Table II below and the economic benefit calculated using the EPA BEN computer model. Civil penalties for other violations shall consist of a gravity component only and shall be determined from Table II.

Table I
Gravity Criteria

	No (0)	Possibly (1)	Probably (2)	Definitely (3)
1. Did the violation result in air pollution?	see ATTACHED		—	—
2. Was it a willful or knowing violation?	+	—	—	—
3. Was the violator unresponsive in correcting the violation?	+	—	—	—
4. Was the violation a result of improper operation or inadequate maintenance?	+	—	—	—
5. Did the violator have a history of similar violations?	—	—	+	—
6. Did the violator benefit economically from noncompliance?	+	—	—	—

Total Gravity Criteria Rating: 2 Plus table

Table II
Gravity Component Penalty

Rating:	1-4	5-7	8-9	10	11	12	13	14	15	16	17+
Penalty:	$1,000	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000	$10,000	$11,000

Benefit Component Penalty

If the answer to question #6 in Table I is "Definitely", the estimated dollar amount of economic benefit determined by the EPA BEN computer model is: $_____ (attach calculations).

Comments: Gravity Criteria

Dec 93	12/9	Hourly Reading 725 ppmc	0	+ 2 =	$1000.00
	12/10	Hourly Reading 716 ppmc	0	+ 2 =	1000.00
JAN 94		Hourly Reading 796 ppmc	0	+ 2 =	1000.00
Feb 94		Hourly Reading 907 ppmc	1	+ 2 =	1000.00
MAR 94		Hourly Reading 773 ppmc	0	+ 2 =	1000.00
April 94		Hourly Reading 701 ppmc	0	+ 2 =	1000.00
MAY 94	3 events	Hourly Reading ≤ 790 ppmc	(6	+ 2)	3000.00

Evaluator: _____ Date: 7/28 Civil Penalty Recommendation: $ 9000.00

Checked By: _____ Date: _____

EMISSION MONITORING CIVIL PENALTY WORKSHEET AND RECOMMENDATION

Source: Ash Grove Cement Co - Seattle Plant

Case No: _____ NOV No: 33658 NO_x 501 ppm @ 10% O_2 - 24hr

The following procedure shall be employed in making a recommendation for assessment of civil penalties for violations of Agency regulations or permits determined through continuous emission monitoring or source testing. Guidance for answering the questions in Table I are found on the back of this sheet. Civil penalties involving demonstrable economic benefit to the violator shall include both a gravity and a benefit component and shall be determined by adding the dollar amount from Table II below and the economic benefit calculated using the EPA BEN computer model. Civil penalties for other violations shall consist of a gravity component only and shall be determined from Table II.

Table I
Gravity Criteria

	No (0)	Possibly (1)	Probably (2)	Definitely (3)
1. Did the violation result in air pollution?	See ATTACHED			
2. Was it a willful or knowing violation?	+			
3. Was the violator unresponsive in correcting the violation?	+			
4. Was the violation a result of improper operation or inadequate maintenance?	+			
5. Did the violator have a history of similar violations?			+	
6. Did the violator benefit economically from noncompliance?	+			
Total Gravity Criteria Rating			2	

Plus table

Table II
Gravity Component Penalty

Rating:	(1-4)	5-7	8-9	10	11	12	13	14	15	16	17+
Penalty:	($1,000)	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000	$10,000	$11,000

Benefit Component Penalty

If the answer to question #6 in Table I is "Definitely", the estimated dollar amount of economic benefit determined by the EPA BEN computer model is: $_____ (attach calculations).

Comments: Gravity Criteria

December 93 Daily Reading 725 ppm 1 + 2 $1000 DE

May 94 Daily Reading 790 ppm 1 + 2 $1000 DE

Evaluator: _____ Date: 7/28/95 Civil Penalty Recommendation: $ 2000 DE

Checked By: _____ Date: _____

EMISSION MONITORING CIVIL PENALTY WORKSHEET AND RECOMMENDATION

Source: Ash Grove Cement CO - SEATTLE PLANT

Case No: _____ NOV No: 33659 CO 1049 ppm @ 10% O_2 8 hr

The following procedure shall be employed in making a recommendation for assessment of civil penalties for violations of Agency regulations or permits determined through continuous emission monitoring or source testing. Guidance for answering the questions in Table I are found on the back of this sheet. Civil penalties involving demonstrable economic benefit to the violator shall include both a gravity and a benefit component and shall be determined by adding the dollar amount from Table II below and the economic benefit calculated using the EPA BEN computer model. Civil penalties for other violations shall consist of a gravity component only and shall be determined from Table II.

Table I
Gravity Criteria

	No (0)	Possibly (1)	Probably (2)	Definitely (3)
1. Did the violation result in air pollution?	+	—	—	—
2. Was it a willful or knowing violation?	+	—	—	—
3. Was the violator unresponsive in correcting the violation?	+	—	—	—
4. Was the violation a result of improper operation or inadequate maintenance?	—	+	—	—
5. Did the violator have a history of similar violations?	+	—	—	—
6. Did the violator benefit economically from noncompliance?	+	—	—	—
Total Gravity Criteria Rating				—

Table II
Gravity Component Penalty

Rating:	(1-4)	5-7	8-9	10	11	12	13	14	15	16	17+
Penalty:	$1,000	$2,000	$3,000	$4,000	$5,000	$6,000	$7,000	$8,000	$9,000	$10,000	$11,000

Benefit Component Penalty

If the answer to question #6 in Table I is "Definitely", the estimated dollar amount of economic benefit determined by the EPA BEN computer model is: $_____ (attach calculations).

Comments: _____

November 1993 1000 oe

Evaluator: _____ Date: 7/28/95 Civil Penalty Recommendation: $ 1000 oe

Checked By: _____ Date: _____

GRAVITY CRITERIA #1

NOx % OVER	POINTS	1 hr ppm 700	1day ppm 501
0- 24%	0	700-868	501-621
25-99%	1	875-1393	626-997
100-199%	2	1400-2093	1002-1498
>200%	3	>2100	>1503

month	POINTS	READING	
DEC 93	0	725 ppm	
DEC 93	0	716 ppm	
DEC 93	1		725 ppm
JAN 94	0	796 ppm	
FEB 94	1	907 ppm	
MAR 94	0	773 ppm	
APR 94	0	701 ppm	
MAY 94	0	<790 ppm	
MAY 94	0	<790 ppm	
MAY 94	0	<790 ppm	
MAY 94	1		790 ppm

CO % OVER	POINTS	8 hr ppm 1049
0- 24%	0	1049-1300
25-99%	1	1311-2087
100-199%	2	2098-3136
>200%	3	>3147

month	POINTS	READING
NOV 93	0	1208 ppm

OPACITY % OVER	POINTS	5% 1 hr	20% 3 min
0- 24%	0	5-6.2%	20-24.8
25-99%	1	6.2-9.9%	25-39.8%
100-199%	2	10-14.9%	40-59.8%
>200%	3	>15%	>60%

month	POINTS	READING	
JUNE 94	1		35%
JUNE 94	2	10.6 %	